

# W5YI

## National Volunteer Examiner Coordinator REPORT

Up to the minute news from the world of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

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## HAM RADIO VERSUS OTHER RADIO SPECTRUM

Unauthorized listening to the radio spectrum - especially to police and cellular communications continues in the limelight. The FCC is currently looking into the need for amateur equipment to be able to receive frequencies outside of the ham bands.

Docket 91-36 asks a number of questions including why can't manufacturers produce amateur gear that only covers the ham bands and what would be involved to modify all existing amateur equipment to operate only on the ham bands!

The federal probe was undertaken in response to a formal request by the American Radio Relay League asking that amateurs be exempted from all laws regulating possession of radio equipment capable of tuning public safety communications. The League wants the federal government to pre-empt all such local and state laws in much the same fashion as PRB-1 which applies to amateur antennas and their supports.

*Eric Dobrowansky, KA2YKC, of Cranford, NJ, was recently arrested and indicted by a grand jury for having ham gear in his car capable of operating on police channels adjacent to the two meter ham band. What makes the case interesting, is that Eric had gone down to the police station to offer his services as a ham operator to help find the source of police radio jamming.*

After first agreeing to accept his help, the Cranford police later arrested him for having equipment capable of doing the jamming - even

though they agree it was not him that was causing interference to their repeater. He could get a jail sentence. We decided to call him.

**W5YI:** What are the New Jersey laws affecting use of transceivers that can receive outside the ham bands?

**KA2YKC:** It is illegal here to have a radio in your vehicle capable of listening to police frequencies unless you are (a.) a medic or fireman (b.) a government official or (c.) have a permit from the chief of police in the town you reside in.

**W5YI:** Are these permits easy to come by?

**KA2YKC:** Usually they are very difficult. You have to have a good reason to have it.

**W5YI:** What kind of amateur equipment do you have in your car?

**KA2YKC:** I have an ICOM 901 which is a remote mountable mobile system ...a multi band VHF/UHF mobile rig with a control head which I have mounted into my front dashboard. The RF section is in the trunk. It covers 2 meters, 220 and 450 MHz.

**W5YI:** What frequencies outside the ham bands does it cover?

**KA2YKC:** At two meters it receives and transmits from 140 to 150 MHz ...and receive-only 138 to 174 MHz ...[which includes] amateur, business

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and police band. [The radio also operates] ...at 220-225 and 440-450 MHz. ...I have been a ham since 1985, in electronics as a hobby about ten years before.

W5YI: How did the police know you had this equipment?

**KA2YKC:** A police officer from Rozelle Park, the next town over, knew I had it. He is also in the two-way business band radio business and works with other police departments. He used to do a lot of repair work out of his home when CB radio was big. I also repaired CB and ham equipment. I ran into him last December at the home of his police captain who lives across the street from some of my relatives. ...I demonstrated the ICOM 901 to him which I had mounted in my car. He saw that it was capable of operating on frequencies outside of the amateur band.

W5YI: Transmit and receive?

**KA2YKC:** The radio had been modified [and] ...had the capability to transmit on police frequencies. I bought it used at a hamfest and the prior owner had modified it. Although not legal, he may have used it for business band as well as amateur use.

W5YI: Then what happened....?

KA2YKC: About a week or two later, I was listening to my scanner in the house - a Realistic 2005 which covers everything from DC to light. I started to hear music. I thought my scanner had stopped on an FM radio station which I didn't have programmed into it. I saw the frequency was 155.250 which is the Cranford police department's repeater output frequency. A little while longer I started to hear some foul language ...nasty remarks to the police officers. This was around 4:30.

I jumped into my car and went down to the police station and asked to speak to Captain Wilde or Officer Frank Hanley who I was also familiar with ...to volunteer my services as an amateur radio operator to help track this interference down... Neither of these officers were available so the desk sergeant asked me for my name, address, information on my vehicle, license plate... I explained that I was an amateur radio operator and that I had heard that some interference on their repeater system and I was offering my assistance to help track down the jammer.

The reason I went down there to offer my skills was they had told me about the problem during a previous visit. My neighbors had been complaining to the police department about traffic to my home since I was running a two-way [radio] business out of my house. The police last summer held a meeting with me and my neighbors trying to resolve the problem. They

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wanted me to limit the number of people coming to my house ...to try to get along with my neighbors because we had some arguments. They did not like the idea of strangers coming into the neighborhood. Captain Wilde and Officer Hanley came to my house to speak to me...

At that time they also told me they were having trouble with their communications over the past few months ...starting back in March of 1990. 'Do you know where people could get their hands on equipment capable of working on our frequencies ...or any people who have that capability?' I told them that there are equipment companies that will sell any kind of two-way radio you want to anyone right over the phone C.O.D. which is programmable to any VHF/UHF frequency. If you have the money to pay for it, you can buy it. They asked me to get in touch with them if I could help. In December I became aware of the problem. That's why I went down to the police station of offer my assistance.

The police dispatcher even got on their frequency and said "Headquarters to all units, Mr. Dobrowansky ...his vehicle is a black Mercury Cougar, license plate number ...with three antennas on the car ...is a ham operator from town who came in offering his help with the interference problem. So if you see his vehicle in the area, don't pull him over suspecting he is the jammer." All the [police] cars in the area knew I was in the area trying to look for the signal.

What happened, however, was my police friend from Rozelle Park had seen me at the time the jamming was going on ...and I guess he noticed the signal was quite strong at the same time I was in the area. He remembered that I had the radio in my car which is capable of operating on those frequencies. Not even paying attention to the voice of this jammer, or to positively ID'ing any signals coming from my vehicle, the first thing he did was run down to the police station and say 'I know Eric Dobrowansky who is a ham has this radio in his car which may be capable of jamming your frequency. I spotted him in the area when the signal was quite strong ...why don't you check him out.'

The Cranford police department obtained a search warrant for my vehicle. I had no idea that they would even suspect me as being the jammer. The following day, my wife and son and I, pulled up in front of my house and two undercover cars come flying up behind me ...they got nasty with me. The jamming was still going on even after they got me out of the car! It became a regular thing ...every day between 4:30 and 6:00. I was in their custody while the jamming was still going on. They had to know that it couldn't be me. About two or three minutes after I got

WOULD YOU LIKE TO BECOME A VOLUNTEER EXAMINER?

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out of the car, the jamming stopped. It was long enough, however, to prove that it was not my vehicle.

The faces on the police officers dropped to the ground. They were very upset. They thought they were going to find me and catch me in the act. They really thought it was me - even though they knew my voice ...and had tapes of the jammer's voice and they don't compare. But they thought I had something to do with it and told me they had a search warrant for my vehicle and took me down to the police station to answer some questions. I said, 'no problem, I have nothing to hide...'

I made a voluntary statement that said 'Yes, I do have a radio in my car capable of working on those frequencies.' I told them you can legally buy the radio ...and it was a ham radio ...not a scanner. I was using it trying to find the jammer. I told them that a ham operator can not go out today and buy a new two-meter rig without breaking the law when he puts it in his car. Almost every two meter radio on the market today has extended receive coverage which will cover from 138 or so 170 megahertz.

It is illegal in New Jersey for a ham to have a radio that is capable of operating on a police frequency. At the time they stopped me and had a search warrant for my vehicle, the radio had no police channels programmed into it whatsoever ...because the day before, once I was done trying to look for the jammer ...I took the frequency out of the VFO and put it back to the local amateur repeater.

They questioned me for about three hours at the police station. They constantly asked me 'Who do I know as far as ham operators in the area ...who do I think it could be ...who do I know with equipment capable of doing it.' Do I know any of the police officer's family, because the jammer was apparently familiar with some of their families because he knew their wives and kids on a first name basis ...and was making derogatory remarks about their family. I did not know this at the time...

It is crazy. They thought they were going to scare the hell out of me and I was going to start squealing names of somebody who was doing it. Honestly, I have no idea who is causing the jamming. I even listened to the tapes to see if I could identify the voice...

They finally figured out that I was not the jammer, but they thought I knew something about it so they went ahead and charged me with having the radio in my vehicle. They confiscated the radio equipment out of my car and released me in my own recognizance with no bail. I had to make a court appearance and I was charged with violation of New Jersey Statute A2A-127-4 ...having a radio in my car capable of receiving

police frequencies.

**W5YI:** You have been arrested and have a court date...

**KA2YKC:** I had the first court appearance in December ...a reading of the charges. An administrative judge scheduled a court appearance for me on February 14th where I was to make a plea. They offered me what they call a pre-trial program where if I pleaded no contest - neither not guilty or guilty - I was to be given one year's probation ...afterwards the charges would have been resolved. I asked about getting my ham equipment back if I was to take this option and no one would give me a straight answer. I pleaded not guilty.

I felt cheated since I was trying to help the town. I didn't want to hear about any deal. I wanted to have my case heard in front of a jury. Then they sent my case to a grand jury to determine if there was enough evidence to issue an indictment on me. A few months went by and in June I was indicted by the Union County grand jury for having the radio ...a felony in New Jersey. The trial was originally scheduled for September 9th - this Monday, but has been postponed to the end of September or the early part of October. I also changed my lawyer from a public defender to one familiar with radio law; John Norton, N2IOB. He has done much work trying to get the New Jersey law amended to exempt hams in the future.

I was also told by the police captain that the Cranford police department is missing some of their two-way hand-held radios and that the FCC from New York had been out in the area trying to track the signal down. It seemed like the jamming would go on for two days or so but the days the FCC was in the area, the jamming would not happen. It was almost like someone knew someone on the police department. When the word was out that the FCC was going to be in the neighborhood, the jamming did not occur that day.

**W5YI:** What penalties are you facing?

**KA2YKC:** They aren't too clear. It could be anything up to a couple of thousand dollars fine and a few months in jail. Since I have no prior record ...I have never been charged with anything in my life, I could be looking at probation or a small fine. Most likely probation. I don't have much to lose if I'm found guilty - other than the fact I will have a record. This law used to be a misdemeanor ...it is now a fourth degree criminal offense. It is a lot worse than it used to be.

We also spoke to Dobrowansky's attorney who tells us that the state of New Jersey is in the process of changing their scanner law ...too late for KA2YKC. He files this report with us:

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## NEW JERSEY SCANNER LAW DIES A SLOW DEATH

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by John Norton/N2IOB.

ARRL Volunteer Counsel - Northern New Jersey

New Jersey is one of only a handful of states in this country where it is still illegal to carry a scanner capable of receiving public service frequencies in your automobile.

Thus, a New York Amateur driving along the New Jersey Turnpike with a two meter HT in his car capable of receiving public service frequencies is in violation of New Jersey law. In New Jersey, violation of this law is an a indictable criminal offense!

What makes this law so unusual and dangerous is the fact that you have violated this law merely by having the radio in your possession. It matters not under the law whether or not the radio is even on. You can even be convicted under this law if you are stopped in the middle of a conversation on your local two meter amateur repeater. If the radio is in your car and it is capable of receiving a public service frequency (e.g. police, fire, EMS) then you are in violation of the law. The New Jersey Law makes mere possession a crime!

The law was passed by the legislature in the thirties. It was likely drafted at the urging of local police departments who were fearful that local burglars would use mobile scanners to determine when the police had been dispatched to the scene of the burglary.

In 1991 a bill was introduced into the New Jersey Senate which would replace the old law with a new law which would make mobile scanners criminal only if they were utilized in the commission of a crime, i.e., for an improper purpose. This bill has passed the Senate with virtually no opposition and is now being considered by the Assembly.

The Assembly Bill Number is A-3044. If the bill is passed by the Assembly it will go to the Governor's desk for his signature or veto. In prior years similar bills have died untimely deaths as a result of opposition from the police lobby within the state. This year, as of the date of this writing no such opposition has surfaced.

At present the Assembly bill resides in the Judiciary, Law and Public Safety Committee. Before the full Assembly can vote on the bill it must be reported out of Committee. This Committee is headed by Assemblywoman Marlene Lynch Ford.

We have just received word that Ms. Ford's Committee will be hearing this bill at its next meeting. This brings the bill one step closer to a final vote on the floor of the Assembly. If you are interested in assuring the passage of this bill you may wish to write directly to Ms. Ford. Her address is:

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The Honorable Maureen Lynch Ford  
200 Main Street, Suite 2  
Toms River, New Jersey 08753

The Assembly Bill is at a critical stage. If the bill is not enacted into law by the end of the year it is likely that we will have to start the whole procedure over again next year with a new legislature. This election day in New Jersey the entire Assembly is up for re-election. The time to express your opinion in regard to this important legislation is therefore now. Please take the time to drop Assemblywoman Ford a QSL card, postcard or letter.

## HAM SENTENCED FOR JAMMING POLICE RADIO

**James A. Haas, WT8Q, of Athens, Ohio was arrested last April and charged with transmitting fake 'officer in distress' calls on the Prince William county (Virginia) police channels. (See W5YI Report, May 1, 1991). The transmissions ...enhanced by sound effects, were traced to Haas' mobile van by the FBI and FCC who were trailing him at the time.**

Federal officials were led to Haas when a phone call related to false-emergency transmissions over police radio frequencies throughout northern Kentucky and Ohio was traced to the Haas' home. A cassette tape marked "siren" containing various emergency vehicle sounds and local and federal frequency lists were confiscated from his van.

Haas pleaded guilty and was sentenced last week. We telephoned and spoke to him Saturday, but he declined to confirm information about the sentencing or to discuss the matter "...on advice of his attorney."

An account of the sentencing appeared in the August 31st "Washington Post" newspaper, however:

**\*Distress Call Sentence** - A federal judge in Alexandria [Virginia] yesterday ordered an Ohio high school teacher to serve three months in community confinement and undergo mental health treatment for broadcasting false distress calls on a police radio frequency and using an unauthorized credit card to purchase radio equipment.

James A. Haas, 39, of Athens, Ohio, also was ordered by U.S. District Judge James C. Cacheris to pay \$762.87 in restitution for the radio equipment.

Cacheris sentenced Haas, a ham radio buff, to three years of supervised probation on condition that he serve three months in a halfway house or other community confinement center, according to a spokesman for the U.S. attorney's office in Alexandria.

Haas was arrested in Sterling [Virginia] in April

The Radio Amateur's LICENSING HANDBOOK is for everyone who wants to know about amateur radio license tests, amateurs

shortly after a false distress call was made on the Prince William County police radio frequency. The Federal Communications Commission, the FBI and Prince William police used electronic tracking equipment to locate the source of the calls.

Haas pleaded guilty to the charges in June and could have faced up to 15 years in prison and a fine of \$500,000.

## WHY THEY DID IT: BAND BAN INTERVIEW

### *Legislation to require cellular blockage*

In an attempt to conform the FCC's Part 15 rules to his interpretation of the *Electronic Communications Privacy Act* (ECPA), Rep. Matthew Rinaldo (R-NJ) has amended the FCC funding legislation to ban the 824-849 and 869-894 MHz bands from scanning receivers. As we previously reported, the bands are allocated to the cellular service and also are available to noncellular, nonlicensed low-power stations and repeaters under §15.209.

The *Federal Communications Commission Authorization Act of 1991* (H.R. 1674) as amended would require the FCC to stop certifying receivers for market that include those bands, or that may be "...readily altered by the user" to receive the bands. ECPA does not currently require the government to ban any such receivers. The full House Commerce Committee has adopted H.R. 1674; the companion Senate legislation does not yet contain a band ban.

Sources were concerned about how the FCC would distinguish "scanning receivers" from "service monitors" or "test equipment," ...and how it would figure out what "readily altered" really means. For example, *Communications Security Association* founder James Ross said the bill represents "...regression toward a police state" that would complicate the detection of eavesdropping devices. He said it would "...triple the work necessary to design a continuous-coverage receiver."

We asked *House Telecommunications Subcommittee* policy analyst Colin Crowell about the bill.

**W5YI:** "What is the purpose of the *Interception of Cellular Telecommunications* section in the *Federal Communications Commission Authorization Act of 1991*?"

**Crowell:** "The purpose is to bring the FCC's equipment certification process in line with ECPA, with the protection accorded to cellular as a common carrier service. The users of cellular have the same rights and expectations of privacy that we have talking on a wireline telephone. The FCC should ensure that the frequencies allocated to cellular are blocked out."

**W5YI:** "The ECPA prohibits reception of other services. Will you block those out too, to bring them in line with ECPA?"

**Crowell:** "We know that there are some sixteen-year-olds who enjoy listening to their local fire departments. But the perception with these scanners, is that many advertisements are actively advertising the fact that they can pick up cellular. Most of the major manufacturers of scanners already block out the cellular frequencies. But there are a few unscrupulous people who are trying to undermine the integrity of the network. It only makes sense that we begin now to close the loops."

**W5YI:** "Have you had any opposition to the ban so far?"

**Crowell:** "No, it tends to be not that controversial. Most of the large producers of scanners already do this."

**W5YI:** "They do not block out the many other frequencies protected by ECPA. Under ECPA, almost any transmitter owned by a common carrier, even if it is not operating in a common carrier service under FCC rules, may be unlawful to receive. Even interference is unlawful to receive, if it comes from a known transmitter owned by a common carrier."

**Crowell:** "We're looking specifically at cellular. The bottom line is our oversight responsibility over the FCC and the security of the network. We would be remiss if we didn't protect cellular. Now I think as time goes on we will see more kinds of telephone services that are now provided over wires go to wireless transmission. As personal communications services become more prevalent, those kinds of uses should not forfeit their privacy."

**W5YI:** "Will receivers that cover the cellular bands but don't include any scanning function be included in the ban? Also, will you ban receivers that decode the cellular ID and track the calls? Those are sold for use by cellular carriers only."

**Crowell:** "The problem is with scanners that can stop randomly on a conversation and pick it up."

**W5YI:** "Radio amateurs use continuous-coverage receivers, for example to identify harmonic emissions that fall in the 800 MHz band. How will they obtain receivers to help them troubleshoot this interference as the FCC requires?"

**Crowell:** "The FCC will have to certify the scanners. It has six months to work out these things and to troubleshoot frequencies and interference. We tried to be as broad as possible, to give them a lot of latitude."

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It would seem inconsistent to require people to troubleshoot frequencies they couldn't pick up."

**W5YI:** "Does that mean you would amend the bill to exempt amateurs, to allow them to have receivers that could tune these bands?"

**Crowell:** "We understand that there are ham radio buffs who enjoy listening to different frequencies. But we want to accord cellular users the same expectation of privacy that they have when using wireline transmissions."

- **Albania returns this week to the DX airwaves after an absence of 45 years!** The previous hard-line Communist regime considered amateur radio a dangerous hobby and an aid to foreign spying. The new *Albania Radio-transmitters Society* will be headquartered in Tirana. ZA1A is supposed to kick off Albanian ham radio on Sept. 16th on CW: 14020, 21020 and 28020 kHz and SSB: 14145, 21245 and 28345 kHz.

**A word of caution!** Note that the twenty meter SSB operation is five kHz below the U.S. band edge; listening above 14.150 MHz! The Albania operation has the potential (maybe even the *certainty*) to be another "Bouvet" ...when a flood of FCC citations were issued because amateurs didn't properly set their VFO's to work split frequency.

- **Cordless telephone** conversations carried to the public telephone network *by infrared light waves* instead of radio frequencies has been developed by a California company. *Big advantage* is that infrared light is not regulated by the FCC. *LitePhone* ...with technology not too much different from that of a TV remote control, has a range of up to 200 feet. *Big disadvantage*: light beams can't penetrate solid objects.

- You had better get with it if you have a personal computer and are not using *electronic mail*. The prestigious Arthur D. Little research organization says by the year 2000, 40 million people in the United States will be sending 60 billion electronic messages a year.

- The House Telecommunications Subcommittee has authorized 1992 FCC funding at \$133.5 million - half of which is to come from *spectrum user fees*. The Amateur Service, government and non-profit users are exempt. A better name for the tariff would be "FCC financing fees" since all funds collected go to pay for Commission enforcement, rule-making, international activities, user information and other administrative services.

- An effort is underway by the *Western Washington Amateur Relay Association* to *stir up interest in the six meter band*. WWARA objects to the +500 kHz band plan presented by the *Southern California Repeater and Remote Base Association* and rubber-stamped by the League's VRAC. The ARRL Board of Directors accepted the SCRRBA plan on July 20th. WWARA, the frequency coordinator in western Washington state, has initiated a "...process to find out what the repeater owners, operators and frequency coordinators really want, not what the ARRL Board voted." They have drafted up new *"Guidelines for Creating a New 6-Meter Band Plan"* [WWARA, 14241 N.E. Woodinville, Duvall Rd. #254, Woodinville, WA 98072.]

- The campaign to *transfer 200 MHz of radio spectrum from government to private use* continues. Congress last shifted spectrum (50 MHz) from federal to commercial hands in 1968. It eventually led to the \$7 billion cellular telephone industry. Legislation under consideration provides for 30 MHz to be

made immediately available with the balance distributed - primarily to emerging technologies - over the next ten years. The hangup continues to be how the new spectrum will be privatized. The Bush administration wants to sell it.

- AMSAT-DL (Germany) advises that the European Space Agency has *confirmed an October 1995 launch slot for the Phase 3D amateur satellite*. The ten-foot wide 1200 pound doughnut-shaped bird will have an orbital period of exactly 16 hours to make it consecutively accessible over Europe, USA and the Far East. Color imaging, educational broadcasting and other experiments are planned. There are currently an even dozen OSCAR satellites in orbit! The latest, OSCAR-22 was launched on July 17.

- The VEC's *Question Pool Committee* has set July 1, 1993 as the date when newly *revised Element 2 (Novice) and 3A (Technician) questions* will be implemented. Use of the current Novice/Technician question pools began July 1, 1990.

- **Steve Roberts, N4RVE** - the California bicycle nomad we have previously written about - is currently pedalling his way through the mid-west on his 580-pound ham radio/computer/satellite/telephone laden bicycle. He dropped us a note on Internet asking us not to reply since he was "...hundreds of letters behind!"

- The JARL (*Japan Amateur Radio League*) has formed a new foundation to promote ham radio. The *Japan Amateur Radio Promotive Association Foundation* will focus on exchanging information, conducting seminars and training courses, public service and developing the business of Amateur Radio.

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## JULY AMATEUR LICENSING STATISTICS

<u>July</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
New Amateurs:	1943	1673	2003	4676
<u>Upgrading:</u>				
Novices	1307	1734	2164	1670
Technicians	408	520	636	764
Generals	330	349	460	463
Advanced	282	276	311	321
<u>Total:</u>	<u>2327</u>	<u>2879</u>	<u>3511</u>	<u>3218</u>
<u>Renewals: (*)</u>				
Total Renew:	3666	* 178	* 73	* 107
Novices	287	21	* 10	* 12
<u>Purged:</u>				
Total Dropped:	1421	1477	1673	* 21
Novices	759	764	776	* 21
<u>Census:</u>				
Indiv. Oper.	437266	461286	490402	525574
Change/Year	+8412	+24020*	+29216*	+35172*
<u>Individual Operators by Class: (and % of total)</u>				
<u>Extra</u>	<u>Advan.</u>	<u>General</u>	<u>Technic.</u>	<u>Novice</u>
				<u>Total:</u>
<u>July 1988</u>				
45716	98420	113405	98370	81355
10.5%	22.5%	25.9%	22.5%	18.6%
<u>July 1989 (*)</u>				
49047	101060	116021	110750	84355
10.6%	21.9%	25.2%	24.0%	18.3%
<u>July 1990 (*)</u>				
52440	104041	118846	123943	91232
10.7%	21.2%	24.2%	25.3%	18.6%
<u>July 1991 (*)</u>				
55783	106732	121505	144593	96961
10.6%	20.3%	23.1%	27.5%	18.4%
Club/				
RACES &	(1988)	(1989)	(1990)	(1991)
Military:	2336	2474	2444	2431
Total Active:	439602	463760	492946	528005
% Increase	+1.9%	+5.5%*	+6.3%*	+7.1%*

(\*) NOTE: The number of amateurs in 1989, 1990 and 1991 is not comparable with prior years. Due to the implementation of the 10-year term license in 1984, amateurs who would ordinarily be dropping out of the Amateur Service between 1989 and 1993 by not renewing will be carried on the amateur roles for another five years before being purged from the FCC's data base. This has the effect of overstating the amateur census between 1989 and 1991 since silent keys and non-renewals will not be deleted. There are now 56,834 (or 65%) more Technician Class operators than just four years ago! (July 1987 = 87,759 Techs.)

[Source: FCC Licensing Facility, Gettysburg, PA]

## AMATEUR RADIO CALL SIGNS

...issued as of the first of September 1991:

<u>Radio District</u>	<u>Gp. "A"</u>	<u>Gp. "B"</u>	<u>Gp. "C"</u>	<u>Gp. "D"</u>
	<u>Extra</u>	<u>Advan.</u>	<u>Tech/Gen</u>	<u>Novice</u>
Ø (*)	AAØFX	KFØTY	NØPHK	KBØJML
1	WV1Q	KD1DK	N1KBQ	KA1ZGQ
2 (*)	AA2GI	KF2DZ	N2NVS	KB2NOU
3	WR3D	KD3YN	N3KKO	KA3ZJJ
4 (*)	AC4JB	KO4IZ	(***)	KD4EMD
5 (*)	AB5AM	KI5TL	N5VZR	KB5QHU
6 (*)	AB6EX	KM6HY	(***)	KD6AKN
7 (*)	AA7JU	KG7TP	N7TSX	KB7OBU
8 (*)	AA8EU	KF8PI	N8QAN	KB8MZP
9	AA9BV	KF9FL	N9MNQ	KB9HEZ
N. Mariana Is.	AHØK	AHØAH	KHØAN	WHØAAQ
Guam	KH2S	AH2CN	KH2FK	WH2AMU
Johnston Is.	AH3D	AH3AD	KH3AG	WH3AAG
Midway Is.		AH4AA	KH4AG	WH4AAH
Hawaii	(**)	AH6LJ	WH6BO	WH6COG
Kure Is.			KH7AA	
Amer. Samoa	AH8D	AH8AE	KH8AI	WH8ABA
Wake W. Peale	AH9A	AH9AD	KH9AE	WH9AAH
Alaska	(**)	AL7NM	NL7ZA	WL7CCU
Virgin Is.	NP2S	KP2BZ	NP2EQ	WP2AHK
Puerto Rico	(**)	KP4SH	(***)	WP4KLD

CALL SIGN WATCH: \* = All 2-by-1 "W" prefixed call signs have been assigned in every radio district except the 3rd call sign area. Two-by-two format call signs from the AA-AK block are assigned to Extra Class amateurs when 2-by-1's run out.

\*\* = All Group A (2-by-1) format call signs have been assigned in Hawaii, Alaska and Puerto Rico. Group "B" (2-by-2) format call signs are assigned to Extra Class when Group "A" are depleted.

\*\*\* = Group "C" (primarily 1-by-3) call signs have now run out in the 4th, 6th and Puerto Rico call districts. According to the rules (adopted by the Commission Feb. 8, 1978, Docket No. 21135), Technician/General class amateurs are next assigned Group "D" (2-by-3 format) call signs when all Group "C" have been assigned. Upgrading Novices holding a 2-by-3 format call sign in the 4th, 6th and Puerto Rico call areas will no longer be able to request a Group "C" call and will be automatically assigned another more recent 2-by-3 format call sign if they do! Contrary to the wishes of many amateurs, the FCC has said they will not be going back and reassigning unused "K" and "W" 1-by-3 format call signs.

[Source: FCC Licensing Facility, Gettysburg, PA]

# W5YI REPORT

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- If you ever wish to send us a packet message, our address is: **W5YI @ N5AUX.TX.USA.NA** We also check our MCI-mailbox twice a day. User ID is **351-1297**. FAX number is: **817/548-W5YI (9594)**.

- Soviet cosmonaut **Musa Manarov, U2MIR/UV3AM** and Soviet "Radio" magazine editor **Boris Stepanov, UW3AX** will be guests of the Texas DX Society at the Houston Ham Convention on November 9th and 10th. Transportation is being provided by Soviet Aeroflot and U.S. Continental Airlines.

Stepanov's "Radio" magazine sponsored the first **"Stars of the Air"** competition on August 17 and 18 with Soviet amateur stations using special "R1A" prefixed call signs. The new field-day type contest ended just as the coup was beginning. One of those ham stations became R1A (without a suffix) and provided Boris Yeltzin with communications from the Russian "White House" in Moscow during the coup attempt.

- **Paul Schleck, KD3FU** is compiling an Internet directory of **"On-Line Elmers."** An Elmer is a ham radio mentor/helper; *Internet*, a group of inter-operating digital networks used for scientific, educational and technical communications. Want to volunteer? You need only send Paul your name, E-Mail address and area of expertise. He is particularly interested in VE's, entry level instructors and those knowledgeable in packet radio. He may be reached at (Internet address) - [acmnews@zeus.unomaha.edu](mailto:acmnews@zeus.unomaha.edu) - or Tel. 402/291-6176 Univ. of Neb.

- **Stu Meyer, W2GHK** has been appointed by Ericsson/General Electric to provide federal liaison services for their firm. He previously held similar positions with E. F. Johnson Company and R.C.A. Mobile Communications. A former

QCWA president, Stu is currently Vice President of AFCEA, the *Armed Forces Communications and Electronics Association*.

- U.S. Marshals and FCC engineers from the San Juan, Puerto Rico field office have **seized CB equipment** from the home of Ramon A. Fernandez Camilo - including linear amplifiers capable of boosting power. Camilo was fined for unlicensed operation and for failure to allow station inspection.

- The **Foundation for Amateur Radio, Inc.**, has awarded 38 scholarships totaling over \$30,000. The scholarships were open to all Radio Amateurs meeting the qualifications and residence requirements of the various sponsors. *[FAR Scholarships, 6903 Rhode Island Ave., College Park, MD 20740]*

- Interested in ham TV? *Amateur Television Quarterly* has a new non-technical book designed to attract new hams titled **ATV Secrets for Aspiring ATV'ers**. Ten or more copies are \$1.50 each plus shipping - or \$2.98 each. *[Available Oct. 15 from: ATVQ, 1545 Lee St., Des Plaines, IL 60018. Tel. 708/298-2269]*

- The **Canadian Amateur Radio Federation (CARF)** and **Canadian Amateur Relay League (CARRL)** are in the process of merging into a single **Radio Amateurs of Canada** organization. Also being established is a **Canadian Amateur Hall of Fame**.

- **ICOM has closed their Dallas service facility** and moved it to the Los Angeles area. At least one local amateur has gone into the ICOM (non-warranty) repair business. *[Contact: Itel, Fred Palmer, WA5WZD, Lewisville West Center #240, 701 S. Stemmons Freeway, Lewisville, TX 75067. Tel. 214/219-1490]* ICOM warranty service must be handled through their Bellevue, WA office.

By the way, ICOM has a new service manager. He is Extra class amateur **Dick Barbero, WY7X**

- **Ham Radio Outlet** has moved their Burlingame store to "Silicon Valley." New address is: 510 Lawrence Expwy #102, Sunnyvale, CA 94086. *[Tel. 408/736-9496]*

- The **ITU Region 2 IARU Executive Committee meeting** took place in Grand Cayman on Aug. 10-11. Issues covered included WARC-92 (and accompanying heavy expenditures,) band planning, the necessity of more 18/24 MHz band occupancy, 3rd party traffic, emergency communications, responsibilities of member societies, IARU WARC Observer teams and financial matters. The meeting was hosted by the **Cayman Amateur Radio Society**.

- The **"Ham Radio in Space"** video produced by **Roy Neal/K6DUE** will air on Westar 5/transponder channel 4 on Oct. 20 at 2-3 p.m. Eastern. The series contains six segments which can be used separately or combined according to instructional needs: *"You Can Fly"*, *"How Ham Radio Went Into Space"*, *"Ham Stations on Earth and in Orbit"*, *"Hams Go To School"*, and *"Ham Radio in the 21st Century."* *[Loan copies available from: Educational Activities Dept., ARRL, 225 Main Street, Newington, CT 06111.]*

- Thirty-four business firms have **applied for nationwide 220-MHz narrowband licenses**. The FCC will issue two licenses each for five and ten-channel systems in each market. Among the applicants are Airborne Freight, AT&T, Consolidated Freightways, General Electric, United Parcel Service, McGraw-Hill, American National Red Cross and various other cellular, trucking and communications companies. Amateurs vacated 220-222 MHz on Aug. 28th without incident.

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## FCC CHIEF ENGINEER TO ADDRESS HAMS

The *Northern California Packet Association* (NCPA) has scored a 'major coup' for the *10th ARRL Computer Networking Conference*, to be held Sept. 27-29 at the Radisson Airport Hotel in San Jose, CA. It's now confirmed that Dr. Tom Stanley, chief of the FCC's Office of Engineering and Technology (OET), will be the keynote speaker.

Other than officials from the Private Radio Bureau who are also licensed hams, it's quite rare for high-ranking Commission decision-makers to make public appearances at Amateur Radio events. As the nation's top spectrum management official, Dr. Stanley is a much sought-after speaker.

He told us that his remarks will include a discussion of spread spectrum, probably the hottest RF technology issue at the FCC. He also said he expects amateur packet and computer buffs to be interested in the *Data Personal Communications Service* proposal which his staff received from Apple Computer. He was particularly pleased to be addressing what is known as one of the finest technical conferences in Amateur Radio today.

## A Look at OET

The OET has a diverse mission inside the FCC. Although other bureaus in the agency are responsible for spectrum *allotment* (divvying up spectrum among geographic areas) and *assignment* (issuing licenses), the OET is concerned with spectrum *allocation* - which is the initial policy decision about the purpose to which radio frequencies will be applied.

It is this role that brought the OET into the harsh spotlight of publicity in Amateur Radio. OET recommended to the Commissioners that the 220-222 MHz band be reallocated from amateur use to the private and governmental radio services. Stanley and his staff were required to defend their recommendation in a Congressional hearing. The reallocation was affirmed by the Commissioners on reconsideration and eventually affirmed by the D.C. Circuit Court of Appeals. OET is now examining the ARRL request to allow amateur access, on a secondary basis, in spectrum just below 220 MHz.

The OET administers the *Experimental Radio Service* (FCC Rules Part 5) and it handles requests from entrepreneurs who want to experiment with new uses for radio (see following story). Within the OET Spectrum Engineering Division, the Frequency Liaison Branch works with the Defense and Commerce departments to ensure that Experimental Service licensees have frequencies in which to operate and no

interference is caused.

Many of the requests for experimental operation are of a classified nature. Others are almost whimsical. The OET was called upon to analyze whether spread-spectrum operation should be authorized to a company testing radio-controlled robot jockeys for horse racing. The exotic radio technologies you read about in the *W5YI Report* must first be evaluated by OET before being sent to the Commissioners for their formal vote.

OET is involved in the FCC's policy towards High Definition Television, for example, which includes a requirement that current standard transmissions and the new HDTV will be simultaneously broadcast for years.

As every amateur should recognize, RF communications is an international affair and the U.S. is obligated to coordinate its frequency use with other nations. This work is performed by the OET's *Treaty Branch*, along with the international liaison staff of other bureaus and the FCC's *Office of International Communications*.

The *OET Authorization and Evaluation Division* establishes technical standards for RF communication hardware. The *Equipment Authorization Branch* laboratory in Columbia, Maryland, measures interference potential of electronics products and determines if they may be legally marketed.

Millions of dollars and the competitive position of major corporations often hang on the decisions of FCC lab engineers and technicians. They give the 'go - no-go' on computers, telephones, mobile communications products, TVs, radio receivers, aviation and marine radios and the like. Dr. Stanley has long requested additional funds to purchase lab equipment that could improve interference testing of products; it remains to be seen whether he will get the money from Congress or from the new "User Fees" the FCC has proposed.

Stanley's staff has the authority to deny marketing even to foreign-made products, as goods without required FCC lab certification may not be imported (except in very small quantity for test purposes). A bone of contention between OET and industry has to do with importation. Manufacturers are up in arms over what they perceive as too-stringent limits on how many products may be imported for test purposes. The FCC is concerned over uncertified products making their way into the stream of commerce.

## Tutorials, demos and more

Besides Stanley's talk and the presentation of papers, the conference will include a demo room, "Birds of a Feather" discussion groups, tutorials for

newcomers to packet radio satellites, digital signal processing and spread spectrum, vendor exhibits and a visit to the museum at the San Jose Technology center.

Instead of everyone trying to find a pizza joint, they have decided to have a very special group dinner on Friday. They are going to have a Hawaiian Luau!

For information contact *Glenn Tenney/AA6ER* in San Mateo at 415/574-3420 (voice); 415/574-0546 (fax); via the UUCP/Internet at [tenney@well.sf.ca.us](mailto:tenney@well.sf.ca.us) or CompuServe: 70641,23.

## PIONEERS BRING FUTURE VISIONS TO FCC

After it announced that 'pioneers' in radio communication could be awarded a 'preference' - a guaranteed license to operate their service - the FCC is now receiving stacks of applications from hopeful innovators.

The road to the Pioneer's Preference is not an easy one. To be eligible, the would-be pioneer must propose a spectrum-efficient radio system that offers the public new functionality or higher speed or quality of information transfer than was previously available. FCC Chief Engineer Tom Stanley told pioneers that they must provide "quantum improvements" in service to the public or the FCC will not award the preference.

In addition to meeting that high standard, pioneers must convince the FCC to change the rules for an existing service or to create an entirely new radio service through a separate Petition for Rulemaking, depending on the nature of the innovation. Either procedure is lengthy, complex and usually quite expensive as armies of lawyers and engineers prepare filings and operate experimental systems. A licensed *Experimental Radio Service* operation, or other technical demonstration of the idea is required.

Here are some of the pioneering ideas the FCC is now considering:

### ***Electronic Tracking System***

This system, developed at Texas Instruments and acquired by a security-conscious Dallas firm, secrets tiny surface-mount device (SMD) transmitters inside currency, boxes of jewelry, vehicles or other items that might be targeted by thieves. A vast, cellular-like monitoring network, aided by hand-held and vehicle-mounted DF equipment, keeps track of the beacons' movements. The system has been immensely successful in 18 years of experimental operation and has police and sheriffs singing its praises.

### ***Advanced Architecture Paging***

This 900 MHz system would enable users to con-

figure bandwidth and data rates for any kind of data, digitized voice or image communication they wish to receive while on the run. Only three licenses would be granted for the entire country.

### ***Utility Meter Reading***

This system would use the 218-219 MHz band to read electric and gas meters with 100 mW transmitters.

### ***Digital Audio Broadcasting***

DAB is expected to replace AM and FM broadcasting in the long run, though no one expects broadcasters to easily give up their unused spectrum. Right now the big controversy is whether broadcasters should be allocated new spectrum in which to transmit DAB, or whether technology will permit the new digital stations to operate in the existing 88-108 MHz band. Another DAB system would transmit programming from satellites. Tests are also planned at UHF-TV frequencies and in the S-band, 2100 MHz.

### ***Iridium***

One of the largest satellite programs ever built, Iridium would launch 77 satellites into low-Earth orbit to provide portable telephone communications to the world's oceans, rural areas and developing countries. Observers are skeptical that the target markets could support the enormous sums of money it would take to launch and maintain Iridium.

### ***MDRS***

The *Mobile Data Radio Service* would use narrowband digital radios developed by ACSB pioneer Bruce Lusignan. The entire service would use just 300 kHz of spectrum in the 900 MHz band. The main application for MDRS is portable computer communications.

### ***PCS***

Personal Communications Services includes many kinds of low-power portable telephone technology that would compete with cellular and ordinary cordless phones on price, size and weight, and flexibility. These systems are expected to operate in the 1.8 GHz band, and the FCC is expected to make an announcement about the availability of this spectrum later this fall.

A recent private study of the 1850-1990 MHz band concluded that there is about 50 MHz of spectrum at that range in eleven markets that could be allocated to PCS. Electric power utilities, railroads and public-safety agencies, however, are bitterly opposed to having to share some of their spectrum with PCS.